

ABSTRACT OF THE DISCLOSURE

A smart memory includes a memory array and one or more memory-intensive
5 additional functions, all packaged in a standard memory package that has substantially
the same fit and form as a standard integrated-circuit memory. One type of smart
memory chip is a multi-media RAM (MMRAM) chip that provides on a single
integrated-circuit chip a memory array and a compressor / decompressor (CODEC)
section where connections between the memory array section and the CODEC section are
10 on the single integrated-circuit die. The smart memory eliminates the need for additional
special function integrated-circuit packages and significantly reduces the clock rate and
the power consumption of a baseband chip in a personal communication device.